

**NOTIFICATION**

Sub. : Selection to the post of Instructors in ZRTI / BSL.

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The Selections for the post of Instructor to be conducted. There are anticipated vacancies at Zonal Railway Training Institute Bhusawal against which Notification is to be issued are as under.

**(A) VACANCIES**

S No.	Faculties	ML	Total Vacancy
1	Information Technology	07	<b>02</b>
2	S & T	07	<b>02</b>
3	Traffic Instructor	06	<b>03</b>
4	Diesel	06*	<b>05*</b>

\*The corrigendum issued on 23.11.23 for ML-7 instead of ML-6 of DSL Instructor post.

**(B) INSTRUCTIONS FOR ALL CATEGORIES**

1	The posts are classified as general selection posts. A selection is conducted by a duly constituted Selection Board. The selection for the post of Faculty Instructors comprises of Written Test and Class Room Trial by evaluating the knowledge as well as communication skill of the candidate as both are required for the post of Instructors.
2	The post of all ZRTI Faculty Instructor, are classified as Ex-Cadre Tenure Posts, as such there is no further avenue of promotion and there is no provision of Reservation i.e. Reservation Rules will not be applicable.
3	The Lien of selected staff will remain in their original cadre.
4	There will be no pay fixation in higher grade in favor of selected employees. They will be fixed on their substantive pay. They will be entitled for only Teaching Allowance at the prescribed rate as per policy.
5	The employees should not be undergoing any effective punishment nor any DAR/SPE/ Vig Case is pending or contemplated against him.
6	The Tenure of selected Candidates against the Ex-cadre posts will be a maximum of 5 Years only and further no extension will be applied.

7	No Applications will be entertained unless and until forwarded by the Office of concerned Sr. DPO as well as DAR Clearance and "No Objection Certificate" from concerned Executive. Refusals from selected candidates will not be accepted.
8	For the level for which a post notification is issued, staff should be from the same level. However, if a sufficient number of candidates are not available from the same level, candidates working one level below can be considered. They will only be considered in the case of a shortfall in that level, and their names will be listed below in merit list those from the originally notified. Selection of instructors in Level-6 has to be done from staff working in level-6 only. In the identical grade for non-running category the staff having two year service in same Matrix Level and for running category the staff having 05 year service at the time of Notification.
9	<b>AGE LIMIT:</b> -Upper Age limit as on date of notification should be 58 years i.e. the age of Candidate should not exceed more than 58 years as on the date of issue of Notification.
10	The Candidates who had previously worked as Instructor in ZRTI BSL are eligible to apply only after a gap of one year from the date of their repatriation to their parent dept./cadre.
11	Applicant must belong substantively to the same pay level for which he is going to apply. The MACP / Ex-Cadre / Deputation Pay Level will not be considered.
12	Selected Candidates can be repatriated at any time even before completion of tenure if his performance not found satisfactory or found indiscipline or found indulging in Mal-practice.
13	Applicant must belong to CR & WCR only.
14	Applicant should have good training capacity, good academic background, practical experience in teaching and capacity to prepare course material. Applicant should have proper experience in the field so that they can impart practical knowledge to the trainees effectively.
15	Applicant should be good communicator, sensitive to cater the need of people, resilient, open minded, perceptive, honest, committed and motivated.
16	There is no provision of Supplementary Examination.
17	The instructor will be repatriated to their parent cadre at least 6 month prior to their date of superannuation.

### (C) SPECIAL CONDITIONS

SN	Category	Special Conditions
1	IT Instructor	The candidate should be working in L-7 on regular basis and should have completed 02 years of non-fortuitous service at the time of Notification. <b>Eligibility: -</b> PGDCA / B.Sc. (Computer Science) / BCA / B.Tech. (Information Technology) / B.Tech. (Computer Science) / DOEACC 'B' level course of three years duration or equivalent from recognized University / Institute through regular or open and Distance Learning mode of education.



Central Railway

Office of the Principal

ZRTI/Bhusawal

NO. ZRTI/BSL/102/ Instructor Selection-23

Dated. 23/11/2023

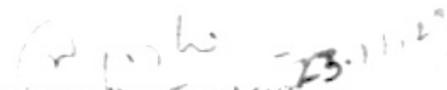
### Corrigendum

Sub. : Selection to the post of Instructor in ZRTI / BSL.

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The notification has been issued vide this notification number dated 17.1.2023 in which it is inadvertently written the level of DSL Instructor is ML-6 instead of ML-7.

Therefore, the 05 posts of DSL Instructors are to be read as ML-7

  
Assistant Personnel Officer  
For Principal ZRTI BSL.

Annexure - B

क्षेत्रीय रेल प्रशिक्षण संस्थान मुसावल में प्रशिक्षक एवं अन्य पद के लिए आवेदन पत्र  
Application for the post of Instructor and others at ZRTI BSL

Passport size photo  
of employee duly  
attested

संकाय का नाम : .....Name of Faculty : .....

1	आवेदक का पूर्ण नाम Full Name of applicant ( In Block letters )	
2	वर्तमान पदनाम Present Designation	
3	प्रविष्टि निधि संख्या PF No.	
4	वर्तमान में कार्यरत स्थान Present place, station, Division / workshop/ HQ	
5	वर्तमान में नियमित सेवत तथा मूलनेतन Present Substantive Level / GP and Basic Pay (Without MACP/Ex-cadre pay )	
6	वर्तमान सेवत / ग्रेड पे में नियमित रूप में नियुक्ति की तिथि Date of entry In present Level/ GP(Regular)	
7	जन्मतिथि Date of birth	
8	नि्युक्ति तिथि Date of appointment	
9	अधिमूचना जारी करने की तिथि ( 16.10.2023 ) को वर्तमान सेवत / ग्रेड पे में की गई कुल सेवा Total railway service in present Level / GP as on date of Notification i.e.19/07/2021	
10	अधिमूचना जारी करने की तिथि ( 16.10.2023 ) को आवेदक की आयु Age of applicant as on date of notification i.e.19/07/2021	__YY__MM__DD
11	शैक्षणिक अर्हता /Educational qualification	
12	इनसे पहले प्रशिक्षक एवं अन्य पद पर किये गये कार्य की अवधि (यदि हो तो ) एवं क्षेत्रीय रेल प्रशिक्षण संस्थान से प्रत्यावर्तित किये जाने की तिथि (यदि हो तो) The last tenure of working as Instructor and others ( If any ) and date of repatriation from ZRTI.(If any )	
13	कार्य अनुभव / working experience (Technical or other)	
14	क्या वर्तमान में कोई शास्ति अधिरोपित/ संवित है. (यदि है तो पूर्ण विवरण दे) Whether any punishment under DAR is pending/undergoing. (If so please give details)	
15	आवेदक का मोबाइल नंबर व ई-मेल आई डी (यदि हो तो ) Applicant Mobile Number and E-mail Id (if available )	

मैं घोषणा करता/ करती हूँ कि ऊपर दिए गए सभी विवरण सही और सत्य है यदि उपरोक्त जानकारी गलत पाई जाती है तो मैं विभागीय कार्यवाही के लिए उत्तरदायी रहूंगा/रहूंगी I declare that all particulars furnished above are correct and true . If the same are found to be false and fabricated I am liable for departmental action.

दिनांक Date:  
of Applicant.

आवेदक के हस्ताक्षर Signature

कार्यालय/ Office

मेमो संख्या /Memo

दिनांक Date

मंडल रेल प्रबंधक (कार्मिक) \_\_\_\_\_ को अग्रिम कार्यवाही हेतु अग्रेषित/ Forwarded to DRM (P) \_\_\_\_\_ for further necessary action please

कार्यालय की मुहर / Office Stamp

डिपो पर्यवेक्षक के हस्ताक्षर/ Signature of In-charge of Depot  
पदनाम / Designation

कार्यालय Office

मेमो संख्या Memo No.

दिनांक Date

प्राचार्य डे.रे.प्र.सं. मुसावल को अग्रिम कार्यवाही हेतु अग्रेषित । प्रमाणित किया जाता है कि मद संख्या 01से15 तक में दिये गये विवरण चेक किये तथा सेवापंजिका के अनुसार सही पाये गये ।

कार्मिक अधिकारी के हस्ताक्षर Signature of Personnel officer  
कार्यालय की मुहर Office पदनाम Designation

### Syllabus for IT Instructor

SN	Item	Description
1.	Office working	Routine Office Knowledge
2.	Software	Operating System – Windows, MS Office etc., IT / Cyber Security
3.	Hardware	Basic knowledge of Computer Hardware / architecture and Peripherals, Storage media, Networking – LAN / WAN etc.
4.	Computer Applications	Computerization in Indian Railways, Email, Internet and usage, Antivirus, Autocad etc, Social Media and their use
5.	Database Management	Knowledge of data porting processing, analysing and sorting. Data backup and recovery.
6.	IT Applications	FOIS, ICMS, COA, CMS, SATSANG, e-office, IPAS, HRMS, TMS, GeM, HHT, PMS, PRS, NTES, RBS, IREPS, IRMMS, IRPSM, POS, UTS, Track Management System etc.
7.	Social Media	Facebook, X, Youtube, blogging etc.
8.	Rajbhasha	Rajbhasha, Use of Information Technology for working in Hindi.
<b>S&amp;T Instructor / Traffic Instructor / DSL Instructor</b>		<b>Syllabus is available in ZRTI website.</b>

### (G) Job Profile/ Duty list of IT Instructor

<b>1</b>	Imparting IT Applications training such FOIS, ICMS, COA, CMS, SATSANG, e-office, IPAS, HRMS, TMS, GeM, HHT, PMS, PRS, NTES, RBS, IREPS, IRMMS, IRPSM, POS, UTS, Track Management System etc. and computer syllabus in various faculties.
<b>2</b>	Proposals for procurement, maintenance, repairs of hardware and software including all IT Equipment at ZRTI.
<b>3</b>	Database administration of trainee management software and mmc local website such as installation, troubleshooting, backup, maintenance etc.
<b>4</b>	Training and coordination with staff about IT applications such as e-office, hrms, ipas etc.
<b>5</b>	Uploading / updating of various notifications, study material, training calendar, results etc. On central railway web site.

# **S&T Faculty**

## **Syllabus for selection of Chief Instructor (Signal) and Senior Instructor (Signal) at ZRTI Bhusawal**

General and subsidiary Rules as applied to Railway operation, signaling at Works connected with Signaling Provision of Signaling at Level Crossing Gates at outlying Siding, Rules for working of putting siding with and without Token on signal line, Catch and slip siding isolation, DCN and Procedure for Running of Trains during Non-Interlocking, station Working Rules, station working rule diagram signal Engineering manual with Special reference to various requirements of Block Working.

Fundamental Engineering and Applied Technology simple Machinery like incline plane pulley Blocks, Traveling Trolleys Machines which and in reduction of time and labour in installation of various Signaling Gears, Principal of Magnetism and Electricity as affecting the operation of signaling equipment's like Relays both AC and DC, Point machine, Crank Handle Interlocking.

Principles of Signal Engineering Standard of Inter – locking and their requirements.

Track Circuits/ Axle Counters, Precaution to be observed for resetting of Axle counters Application of Axle Counters, BPAC, Interlocking Plane , Locking Table and selection Circuits Joints Inspection of Points and Crossing Checks required while taking over points from Engineering Department.

Panel interlocking /Route Relay interlocking (Operation) with DATA Logger.

Auxiliary Warning System Anti Collision Devices provision of Double Distant Signals Aspect Control chart and Modern Signaling.

Telecommunication equipment at accident site.

In Modern Technology basic concept of Audio Frequency Track Circuit, Digital Axle Counter and Electronic interlocking.

RAJBHASHA

Provision of Rules for RAJBHASHA etc

# Traffic

## Syllabus for Selection of Traffic Instructors Preliminary

1. Brief history of Indian Railways.
2. Organizational set up of Indian Railways at various levels viz. Railway Board, Zonal Railway and Divisional Railways.
3. Objectives & functions of Indian Railways.

Knowledge of Updated G & SR Book:

1. Definitions.
2. Classifications of Stations.
3. Rules applying to Railway Servants generally.
4. Signals
  - a) General Provisions.
  - b) Description of various fixed signals.
  - c) Signal sighting committee and sighting of Signals.
  - d) Equipment of Signals.
  - e) Working of signals and points.
  - f) Hand signals.
  - g) Detonating signals
  - h) Defective signals.
5. Working of trains generally:
  - a) Various operating forms & precautions thereof.
  - b) Engine whistle code.
  - c) Speed of trains during failure of headlight, whistle & speedometer and different turn-outs.
  - d) Board and Indicators.
  - e) Equipment of train and train crew.
  - f) Precaution during train working before starting during journey & on arrival and working of trains without Brake van.
  - g) Marshalling & ODC working and Ghat rules.
  - h) Working of material train & Track maintenance machines.
6. Control & working of stations:
  - a) Responsibility of Station Master for working.
  - b) Station working Rules.
  - c) Reception of train on obstructed line, unsignalled line and dispatch thereof.
  - d) Despatch of train from common Starter Signal line.
  - e) Rules & responsibility towards shunting SM Guard & Driver.
  - f) Types of shunting & securing of vehicles.
  - g) Non-interact working & train operation during over hauling / cable meggering / Disconnection and reconnection.

7. Abnormal working:

- a) LSL Working.
- b) Working of trains during total failure of communication on double line and single line.
- c) Protection rules.
- d) Train delayed in section.
- e) Train stalled on gradient.
- f) Requisition of assisting engine and cancellation.
- g) Train parting and train dividing.
- h) Fire on train.
- i) Vehicle escaping.
- j) Working of trains during thick and foggy weather.
- k) Explosion on track and lurch reported.
- l) Working of trains during hot axles.

8. System of working :

- a) On Indian Railways.
- b) On Central Railway – Absolute, Automatic & one train only.
- c) Essentials of Absolute and lock & block system.
- d) Conditions of grating line clear at 'A', 'B', & 'C' class station.
- e) Illustrative diagrams of various class of stations.

9. Automatic Block System :

- a) Essentials of Automatic Block System on double line.
- b) Duties of Driver and Guard when Automatic signal is at on.
- c) Abnormal working during prolonged failure of signals, failure of signals and communication, TSL working.

10. Block Working :

- a) Uses and operation of Block instrument & authority to proceed.
- b) Train entered into block section without or wrong authority to proceed.
- c) Bell Code on block instrument acknowledgement and action to be taken.
- d) Failure of block instrument & action thereupon.
- e) Conditions for taking off signals.
- f) Private Number sheet & Train Signal Registers.
- g) Precautions for clearing back of Block Section.

11. Permanent Way & Works :

- a) Maintenance of line.
- b) Patrolling of lines.
- c) Works involving danger to trains or traffic and precautions.
- d) Protection rules.
- e) Working of lorries, trollies and motor trollies.

12. Level Crossing :

- a) Working of Traffic & Engineering gates and train operation.
- b) Defects at level crossing, obstruction at level crossings, train parting.
- c) Inspection of level crossing gates IVU, Height Gauges.

13. Working of Trains in Electrified Section :

- a) Permit to work on electrical equipment.
- b) Warning to public and staff.
- c) Working of tower wagon.

14. Essentials of Interlocking & means of Isolation :

15. Knowledge of Accident Manual :

- a) Definition and classification of accidents.
- b) Operating and accident and other unusual occurrences.
- c) Duties of Railway Officials during accident.
- d) Relief and Restoration in case of an accident.
- e) Procedure for dealing with cases of sabotage and train wrecking.
- f) Action to be taken when
  - i) Dangerous or unusual condition noticed on train.
  - ii) Person thrown out / knock down by a train.
  - iii) Natural death / murder on train.
- g) Investigation and enquiry and disposal of enquiry reports.
- h) Disaster Management
  - 1) Objectives.
  - 2) Tenets of disaster management.
  - 3) Duties of various departments.
  - 4) Ordering of ARME & A.R.T. (Hooter codes).

16. Higher Transportation :

- a) General Principle and methodology of passenger trains time table.
- b) Punctuality and factors affecting the punctuality.
- c) Planning of special trains and new trains.
- d) Rake links Through & Sectional coaches.
- e) Working time table load tables & corridor blocks.
- f) Control of goods operation of Railway Board, Zonal & Divisional level and role of Control office, Stations and marshaling terminal yard.
- g) Pooled and non-pooled wagons.
- h) Congestion of yard / sections congestion and remedies.
- i) Operating statistics.
- j) Line / section capacity & Throughput and W.T.R.
- k) Principles of Train ordering.
- l) Area control, stock report, D.W.B. and wagon census.
- m) Uses of computer operation for coaching (COIS) & freight operations (FOIS).

- n) Safety organization Railway Board, Zonal and Divisional level along with CCRS /CRS Organization & Functions.
- o) Marshalling yards – Composition and formation of trains.
- p) Priority schedules – O.D.R, W.R.F. Wharfage and demurrage.
- q) Bans and restrictions.
- r) Siding rules – Private and Railway.
- s) Modernization steps for enhancing safety in train operation.
- t) 10 Hours rule, recovery time and allowances in train working.
- u) Planning on Railways – Annual Works Programme (DCF & ROR Technique) traffic trends / forecast of future traffic requirements with analysis of traffic bottlenecks, Daily / Periodical performance reports, Interchange transactions and commitments.
- v) Introductory knowledge of PSUs connected with Indian Railways, IRCTC, RITES, IRCON, CONCOR, RAILTEL, MRVC, RVNL, KRCT, PRCL, RLDA etc.
- w) Initiatives to increase freight traffic, freight forwarding scheme, station to station rate, double Decker container, RORO, OWYS, EOL Scheme, payment of freight through FOIS electronic network, round the clock loading, use of FOIS to take decisions etc.

#### 17. C & W

- 1) Wagon and coaching stocks mechanical codes.
- 2) Brake continuity test.
- 3) Brake power certificate.
- 4) Train working with flat tyre and clamps.
- 5) Kinds of rakes – CC, jumble, merry go round, Until train, jugglers, sherpa.

18. Registers & Books maintained in yards / stations / control office.

19. Man Power Planning.

20. HOER.

21. Leave & Pass Rules.

# SYLLABUS FOR DIESEL LOCO INSTRUCTOR

## 1. General:

- a) General information of Indian Railway, Organization.
- b) Details about Hygiene, Pollution free Environment.
- c) Knowledge of GR & SR and WTT such as provision of G & SR for working of train in normal and abnormal conditions.
- d) Aptitude in teaching. Able to deliver lectures with examples while explaining the subject and should have neat and clear speech.

## 2. Mechanical :

- a) Heat Engine, Definitions, Types of Heat engine, Functions of various type of heat engine, Different components and its function.
- b) Transmission, types of transmission and advantages.

## 3. Basic electricity :

- a) Should have knowledge of basic electricity.
- b) Should know various electrical laws such as Ohms law, Lenzs law, Kirchoff's law, Faradays Law etc.

## 4. Electric Machines :

- a) Motor - Principal, Functions, Advantages and various type of AC and DC motors.
- b) Generator – Principal, Functions, Advantages and various type of AC and DC generator.

## 5. Electrical equipment :

- a) Safety equipment – fuse, Circuit breaker, relays and function of it.
- b) Battery, types of battery.
- c) Transformer, type of transformer and its function, Rectifier.

## 6. Measurement and Instrumentation :

- a) Knowledge of Voltmeter, Ammeter.
- b) Pneumatic and Hydraulic pressure gauges.
- c) Temperature gauge.

## 7. Diesel Loco :

- a) Main feature and parameters of various Diesel loco.
- b) Major compartment and parts of various compartments of various locos.
- c) Power pack, Fuel oil system, Lube oil system, Cooling water system, Air intake system.
- d) Expresser, Definition, function of Compressor, Exhauster and its lubrication

System, Air charging system of Loco.

- e) Brake system, Type of brake system such as 28 LAV1 and IRAB1, Function of Various valves.
- f) Various types of Engine Governor and its function such as GE, WW and MCBG.
- g) Various Rotating machines and its function.
- h) Various types of circuit such as Battery charging, starting circuit, Throttle DMR Circuit, Propulsion circuit of various Loco.
- i) Dynamic braking advantages and application procedure.
- j) Transition and its requirement.
- k) Various types of bogies of Diesel loco and suspension arrangement.
- l) Different types of schedules of loco.
- m) Advantages of AC-DC and AC-AC loco.
- n) Various modifications In Diesel loco.